5 4 9 , 9 4 4

(54) Title: NOVEL BACILLUS BAGCEL CELLULASE

ORF Nucleotide sequence of cellulase gene

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ATGGGTTATA CCAAAGCGAA GTGTACGTTG AAAAAAACTG TCTTGTTTGG      50
TTTAATTCTC TGTTTAAGTG TGTCAATGTT TGTTCCAATG ACATCAGCTG      100
AAGATGTCAC TTCGTCACAG TTGGATATTC ACTCCTATGT AGCTGACATG      150
CAGCCTGGCT GGAAATTTAGG AAATACGTTT GACGCTGTTG GAGATGATGA      200
AACAGCGTGG GGGAATCCTC GTGTAACAG AGAGTTAATA AAAACGATTG      250
CTGATGAAGG GTATAAAAGC ATTCGTATCC CAGTGACATG GCAAAATCAA      300
ATGGGTGGTT CTCCAGATTA TACGATAAAT GAAGATTATA TCAATCGGGT      350
GGAGCAAGCG ATAGATTGGG CGTTGGAGGA AGACTTATAT GTGATGTTAA      400
ATGTGCATCA TGACTCATGG CTGTGGATGT ATGATATGGA ACATAACTAT      450
GATGAGGTCA TGGCAAGATA TACAGCTATT TGGGAACAAT TGTCGGAAAA      500
ATTCAAAAGC CACTCCCATA AGTTGATGTT TGAGAGTGTC AATGAGCCTA      550
GGTTTACGCA GGAGTGGGGA GAGATTCAAG AAAATCATCA TGCTTACTTA      600
GAAGATTTAA ATAAGACGTT CTATTATATT GTCAGAGAGT CAGGAGGCAA      650
TAATGTGGAG CGCCCTTTAG TATTGCCTAC GATAGAAACA GCCACGTCTC      700
AGGATTTACT AGATCGCTTG TATCAAACAA TGGAAGACTT GGATGATCCT      750
TATTTAATTG CCACGGTGCA TTATTATGGC TTCTGGCCAT TTAGTGTCAA      800
TATAGCAGGG TACACTCATT TTGAACAGGA AACACAACAA GATATTATAG      850
ACACCTTTGA CCGTGTTCAT AACACATTTA CAGCGCGTGG TGTCCCAGTT      900
GTATTAGGCG AATTCGGTTT GTTAGGCTTT GACAAAAGTA CGGATGTGAT      950
TCAGCAAGGG GAGAAATTAA AGTTTTTTGA GTTTCTCATC CATCATCTCA      1000
ATGAACGTGA TATAACCCAT ATGTTATGGG ATAACGGCCA GCATTTAAAT      1050
CGAGAAACTT ATGCATGGTA TGATCAAGAA TTTCATGACA TATTAAAAGC      1100
GAGTTGGGAG GGGCGTTCTG CTACAGCAGA GTCTAATTTG ATTCATGTGA      1150
AGGACGGAAA GCCAATTAGA GATCAAGATA TACAGCTTTA CTTAAACGGA      1200
AATGAGCTAA CAGCCTTACA GGCAGGGGAG GAATCGCTTG TTCTAGGAGA      1250
GGATTATGAA CTAGCAGGAG GCGTATTAAC GCTAAAAGCG GACACCCTCA      1300
CAAGACTAAT TACCCCTGGT CAATTAGGAA CCAATGCAGT CATCACAGCA      1350
CAATTTAATT CTGGAGCAGA CTGGCGTTTT CAATTACAGA ATGTGGACGT      1400
GCCAACGGTC GAAAATACAG ATGGCTCAAC ATGGCATTTT GCGATCCCTA      1450
CCCATTTTAA TGGTGATAGT CTTGCGACGA TGGAAGCTGT TTATGCAAAC      1500
GGAGAATATG CTGGGCCGCA AGATTGGACG TCATTTAAAG AATTTGGCGA      1550
GGCGTTTTCT CCTAATTACG CCACAGGGGA AATTATTATA TCAGAAGCCT      1600
TCTTTAACGC GGTACGGGAT GATGATATCC ATTTAACATT TCATTTTTGG      1650
AGCGGAGAGA CGGTGGAATA TACCTTACGT AAAAATGGCA ATTATGTTCA      1700
AGGTAGACGG TAA                                             1713
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(57) Abstract: The present
invention provides a novel
cellulase nucleic acid sequence,
designated BagCel, and the
corresponding BagCel amino
acid sequence. The invention
also provides expression vectors
and host cells comprising a
nucleic acid sequence encoding
BagCel, recombinant BagCel
proteins and methods for
producing the same.

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